

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) Receiver A receiver antenna system of broad bandwidth comprising:

a plurality of active, vertical individual antennae each with an electrically-active antenna height adapted to a respective received frequency range, wherein:

the mutual electromagnetic coupling between the individual antennae, which are positioned at a small spacing distance, is minimized, ~~and wherein~~ by optimization of individual mechanical and electrically-active antenna heights, individual antenna diameters, spacing distances between individual antennae, and the input impedances of active base-point electronics disposed at respective base points associated with the individual active antennae,

wherein in each of the individual antennae, the electrically-active antenna height is optimized by an arrangement of conductor portions disposed along a vertical length of the antenna wherein one of a plurality of impedance elements is disposed between each consecutive pair of conductor portions,

the optimized arrangement of the impedance elements relative to one another takes place both within one of the individual antennae and also between the individual antennae, and

the length of each subsequent conductor portion ~~portions between intermittent impedance elements of each individual antenna are of a shorter length~~ decreases with increasing distance of the conductor portion from a base point located at an open end of the antenna.

2. - 5. (Canceled)

6. (Currently Amended) Receiver antenna system according to claim ~~[[3]]~~ 1, wherein the interconnection of the impedance elements provides a low impedance in

the case of low received frequencies, and provides a high impedance in the case of high received frequencies.

7. (Previously Presented) Receiver antenna system according to claim 6, wherein the interconnection of the impedance elements comprises a parallel circuit comprising an inductance and an ohmic resistor or annular or tubular ferrite cores fitted onto printed conductor portions.

8. (Currently Amended) Receiver antenna system according to ~~[[2]]~~ 1, wherein the input impedance of the active base-point electronics provides a high-resistance input impedance in those of the individual antennae, which are determined for the reception of low-frequency transmission signals.

9. (Previously Presented) Receiver antenna system according to claim 8, wherein the input impedance of the active base-point electronics comprises a parallel circuit comprising a high-resistance resistor and a low-capacity capacitor in those of the individual antennae, which are determined for the reception of low-frequency transmission signals.

10. (Currently Amended) Receiver antenna system according to claim ~~[[2]]~~ 1, wherein the input impedance of the active base-point electronics in those of the individual antennae, which are determined for the reception of relatively high-frequency transmission signals, is designed to be of low-resistance for low-frequency transmission signals and to be at the base-point impedance of the passive antenna region of the respective individual antenna for relatively high-frequency transmission signals.

11. (Previously Presented) Receiver antenna system according to claim 10, wherein the input impedance of the active base-point electronics in those of the

individual antennae, which are determined for the reception of relatively high-frequency transmission signals, comprises a parallel circuit comprising a resistor and an inductance.

12. (Previously Presented) Receiver antenna system according to 8, wherein the input impedance of the active base-point electronics is additionally mismatched in a targeted manner.

13. (Currently Amended) Receiver antenna system according to wherein [[2]] 1, wherein the received frequency ranges of the individual antennae adjoin one another and form a complete received frequency range.

14. (Currently Amended) Receiver antenna system according to claim 13, wherein phase matching networks for phase matching of the received transmission signals and a crossover network for combining individual received transmission signals are connected to passive antenna regions for the reception of transmission signals and to the base-point electronics (Z_1, Z_2, \dots, Z_N) for the amplification and filtering of the received transmission signals.

15. (Previously Presented) Receiver antenna system according to claim 12, wherein the input impedance of the active base-point electronics is additionally mismatched in a targeted manner outside the useful frequency range to the base-point impedance of the passive antenna region of the respective individual antenna.